

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	bromer.in. and nick.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO	OR	OFF	2007/02/04 15:26
S1	2	("2602860" "5973999").pn.	USPAT	OR	OFF	2007/01/31 11:16
S2	8	("2602860").URPN.	USPAT	OR	OFF	2007/01/31 12:13
S3	180	mach near3 disk	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/31 12:13
S4	18	S3 and ((loud near3 speaker) (speaker transducer exciter))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/31 12:14
S5	8	("2602860").PN. OR ("3670842"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:35
S6	23	("2491982"   "3065816"   "3104729"   "3666041"   "3670842"   "3933219"   "4146744"   "4179585"   "4201274"   "4256922"   "4284166"   "4503903"   "4875546"   "5117459"   "5216209"   "5227591"   "5485521"   "5936209").PN. OR ("6625289"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:37
S7	44	("2689016"   "3449519"   "4083426"   "4142603"   "4410064"   "4549631"   "4616731").PN. OR ("4875546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:43
S8	17484	(\$7annular \$7sperical \$7circular \$7elliptical) adj3 array	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:44
S9	20390	(\$7annular \$7sperical \$7circular \$7elliptical) adj3 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:44

## EAST Search History

S10	89	"381"/\$.ccls. and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:50
S11	2	"7088830".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:51
S12	36	("1616639"   "1951669"   "2461344"   "3012222"   "3398810"   "3461421"   "3513439"   "3612211"   "3613069"   "3710332"   "3723957"   "3742433"   "3836951"   "4005278"   "4207571"   "4245136"   "4378596"   "4418248"   "4429194"   "4433750"   "4593160"   "4823908"   "4908805"   "4991148"   "5181301"   "5317543"   "5357578"   "5844998"   "6606389").PN. OR ("7088830").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 14:27
S13	23	("4005278").URPN.	USPAT	OR	OFF	2007/01/31 14:58
S14	53	("0224073"   "3676594"   "3794779"   "3796840"   "3836724"   "3939310"   "3984885"   "4005278"   "4087631"   "4097689"   "4136260"   "4251686"   "4412106"   "4433209"   "4443668"   "4748669"   "4789044"   "4817149"   "4821323"   "4829571"   "4965836"   "5137110"   "5148887"   "5175768"   "5201003"   "5272757"   "5307415"   "5333206"   "5337363"   "5345512"   "5357277"   "5371799"   "5434924"   "5438623"   "5459790"   "5467401"   "5474290"   "5521981"   "5521982"   "5524053"   "5533137"   "5544249"   "5546227"   "5682172"   "5684879"   "5706360").PN. OR ("6038330"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:02
S15	6	("5684879").URPN.	USPAT	OR	OFF	2007/01/31 15:05

## EAST Search History

S16	36	("0501610"   "1273459"   "1690840"   "1718357"   "1760085"   "1868019"   "2034882"   "2534040"   "2551556"   "3201529"   "3509290"   "3821492"   "3943304").PN. OR ("4379951").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:32
S17	865	speaker near3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:33
S18	472	speaker adj3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:33
S19	587	(loudspeaker speaker) adj3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:40
S20	82	(loudspeaker speaker) adj (arcuate ring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:36
S21	1310	arcuate near2 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:36
S22	897	(loudspeaker speaker) near3 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:40
S23	5	S21 and S22	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:43
S24	1787	(381/339,186,395,430,396).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/01/31 15:44
S25	0	("17and@ad<=20020807").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/01/31 15:44

## EAST Search History

S26	919	S24 and @ad<="20020807"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S27	905052	array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S28	59	S26 and S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S29	20	("1866831"   "3379276"   "3578103"   "3608665").PN. OR ("5088574").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:55
S30	5	("4923032"   "5088574").PN. OR ("5952619").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:56
S31	14	("3627948"   "3754618"   "4165797"   "4179008"   "4365688"   "4580654").PN. OR ("4815559"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:59
S32	14	("3054856"   "3157247"   "3888333"   "3931867"   "4057689").PN. OR ("4179008"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:02
S33	22	("3931867").URPN.	USPAT	OR	OFF	2007/01/31 16:04
S34	17	("2602860"   "2632055"   "3026957"   "3525809"   "4037051"   "4165797"   "4199658"   "4572325"   "4624337"   "4837826"   "4885782"   "5430260"   "5590771").PN. OR ("6801631"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:33
S35	16004	tilt\$5 near3 (inside inward in)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:34
S36	2674	(S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37

## EAST Search History

S37	1	( S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:34
S38	2674	(S24 S25 S26 S27 S28 S29 S30 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S39	0	( S28 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S40	0	( S29 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S41	0	( S30 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S42	0	( S31 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S43	1	( S32) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S44	0	( S33) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:36
S45	0	( S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S46	1	( S26) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S47	1	( S28 S29 S30 S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S48	2	( S24) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:38
S49	3	( S12 S13 S14 S15 S16 S18 S17 S19) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:38
S50	1	"4837826".pn.	USPAT	OR	OFF	2007/02/04 15:25

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	bromer.in. and nick.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO	OR	OFF	2007/02/04 15:26
S1	2	("2602860" "5973999").pn.	USPAT	OR	OFF	2007/01/31 11:16
S2	8	("2602860").URPN.	USPAT	OR	OFF	2007/01/31 12:13
S3	180	mach near3 disk	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/31 12:13
S4	18	S3 and ((loud near3 speaker) (speaker transducer exciter))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/31 12:14
S5	8	("2602860").PN. OR ("3670842"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:35
S6	23	("2491982"   "3065816"   "3104729"   "3666041"   "3670842"   "3933219"   "4146744"   "4179585"   "4201274"   "4256922"   "4284166"   "4503903"   "4875546"   "5117459"   "5216209"   "5227591"   "5485521"   "5936209").PN. OR ("6625289"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:37
S7	44	("2689016"   "3449519"   "4083426"   "4142603"   "4410064"   "4549631"   "4616731").PN. OR ("4875546").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:43
S8	17484	(\$7annular \$7sperical \$7circular \$7elliptical) adj3 array	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 12:44
S9	20390	(\$7annular \$7sperical \$7circular \$7elliptical) adj3 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:44

## EAST Search History

S10	89	"381"/\$.ccls. and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:50
S11	2	"7088830".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 12:51
S12	36	("1616639"   "1951669"   "2461344"   "3012222"   "3398810" "3461421"   "3513439"   "3612211"   "3613069"   "3710332" "3723957"   "3742433"   "3836951"   "4005278"   "4207571" "4245136"   "4378596"   "4418248"   "4429194"   "4433750" "4593160"   "4823908"   "4908805"   "4991148"   "5181301" "5317543"   "5357578"   "5844998"   "6606389").PN. OR ("7088830").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 14:27
S13	23	("4005278").URPN.	USPAT	OR	OFF	2007/01/31 14:58
S14	53	("0224073"   "3676594"   "3794779"   "3796840"   "3836724" "3939310"   "3984885"   "4005278"   "4087631"   "4097689" "4136260"   "4251686"   "4412106"   "4433209"   "4443668" "4748669"   "4789044"   "4817149"   "4821323"   "4829571" "4965836"   "5137110"   "5148887"   "5175768"   "5201003" "5272757"   "5307415"   "5333206"   "5337363"   "5345512" "5357277"   "5371799"   "5434924"   "5438623"   "5459790" "5467401"   "5474290"   "5521981"   "5521982"   "5524053" "5533137"   "5544249"   "5546227"   "5682172"   "5684879" "5706360").PN. OR ("6038330"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:02
S15	6	("5684879").URPN.	USPAT	OR	OFF	2007/01/31 15:05

## EAST Search History

S16	36	("0501610"   "1273459"   "1690840"   "1718357"   "1760085"   "1868019"   "2034882"   "2534040"   "2551556"   "3201529"   "3509290"   "3821492"   "3943304").PN. OR ("4379951").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:32
S17	865	speaker near3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:33
S18	472	speaker adj3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:33
S19	587	(loudspeaker speaker) adj3 ring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:40
S20	82	(loudspeaker speaker) adj (arcuate ring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:36
S21	1310	arcuate near2 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:36
S22	897	(loudspeaker speaker) near3 array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:40
S23	5	S21 and S22	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	OR	OFF	2007/01/31 15:43
S24	1787	(381/339,186,395,430,396).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/01/31 15:44
S25	0	("17and@ad<=20020807").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2007/01/31 15:44



## EAST Search History

S26	919	S24 and @ad<="20020807"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S27	905052	array	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S28	59	S26 and S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/31 15:45
S29	20	("1866831"   "3379276"   "3578103"   "3608665").PN. OR ("5088574").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:55
S30	5	("4923032"   "5088574").PN. OR ("5952619").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:56
S31	14	("3627948"   "3754618"   "4165797"   "4179008"   "4365688"   "4580654").PN. OR ("4815559"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 15:59
S32	14	("3054856"   "3157247"   "3888333"   "3931867"   "4057689").PN. OR ("4179008"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:02
S33	22	("3931867").URPN.	USPAT	OR	OFF	2007/01/31 16:04
S34	17	("2602860"   "2632055"   "3026957"   "3525809"   "4037051"   "4165797"   "4199658"   "4572325"   "4624337"   "4837826"   "4885782"   "5430260"   "5590771").PN. OR ("6801631"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:33
S35	16004	tilt\$5 near3 (inside inward in)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:34
S36	2674	(S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37

## EAST Search History

S37	1	( S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:34
S38	2674	(S24 S25 S26 S27 S28 S29 S30 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S39	0	( S28 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S40	0	( S29 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S41	0	( S30 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S42	0	( S31 ) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S43	1	( S32) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:35
S44	0	( S33) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:36
S45	0	( S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S46	1	( S26) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S47	1	( S28 S29 S30 S31 S32 S33 S34) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:37
S48	2	( S24) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:38
S49	3	( S12 S13 S14 S15 S16 S18 S17 S19) and S35	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/31 16:38
S50	1	"4837826".pn.	USPAT	OR	OFF	2007/02/04 15:25